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# STUDIES

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## MULTIPLE PATIENT ADMISSIONS TO NORTH CAROLINA GENERAL HOSPITALS DURING 1980

by

Paul A. Buescher

### Introduction

For calendar year 1980 nearly 900,000 North Carolina hospital discharge records were assembled from several sources, representing about 93 percent of short-stay general hospital inpatients during that year. A previous publication in this series (1) contains a description of how this information was collected and also selected tabulations of the discharge data. While information on discharges does provide a good portrayal of the demand for hospital beds, it might also be useful to know the number of individual patients that generated these hospital discharges. For example, 25 hospitalizations might be caused by a specific disease during a year, but this could represent anywhere from one to 25 different patients. While the number of discharges by one patient during a year could be an indicator of severity of illness, for some purposes — such as assessing the level of morbidity in a population — it would be more useful to count persons rather than discharges. It should be recognized, however, that disease patterns among hospitalized persons do not necessarily reflect morbidity in the community at large (2,3).

This brief report examines the degree of multiple hospitalization for patients grouped by age, race, sex, diagnosis group, and hospital size. The results are then compared to those found in other studies of multiple hospitalization.

### Method

The only way to "unduplicate" hospital discharges is through the use of some patient identifier. Many of the 1980 discharge records did contain a nine-digit patient number, though we have absolutely no way to link this number to a patient's name without further information from the hospitals. Preliminary tabulations of the number of times the same patient number appeared among the records within each hospital were first carried out. If a

hospital had no duplicate patient numbers within its discharge records then it was assumed that the same patient number was not assigned to a person every time he was admitted during the year and the records for that hospital were excluded from the study. For the remaining hospitals a short survey form was sent to the director of medical records to confirm that the same patient number was used for a person each time he was admitted during the year and that this was also true for newborns for subsequent readmissions. We found that 49 of the 101 hospitals for which we had data with patient numbers did use such a "unit numbering system." These 49 hospitals account for about 507,000 of a total of 962,000 general hospital inpatient discharges (from all 134 general hospitals) during 1980. An assessment of the coverage achieved by the 49 hospitals is shown below. Overall, 37 percent of the 1980 short-stay general hospitals are included, though this ranges from 22 percent for hospitals with less than 100 beds to 80 percent for hospitals with 400 or more beds. Since the larger hospitals are overrepresented, the overall percent of discharges covered in this study is 53.

bed size	# In state	# In study	% In study
0- 99	59	13	22.0
100-199	41	15	36.6
200-399	19	9	47.4
400+	15	12	80.0
Total	134	49	36.6

Of the 507,000 discharges included here, 231,000 were in hospitals with less than 400 beds and 276,000 were in hospitals with 400 or more beds. The 49 hospitals are spread fairly evenly across the state, except for HSA Region V (southeastern N.C.) which has only two hospitals included.